

LINUX AS A LOW-LATENCY, ROCK-STABLE LIVE PERFORMANCE SYSTEM

PROS

VERSATILE

With respect to “hardware” setups (pedals, multi-effects), a computer-based setup provides with **almost infinite versatility** (see examples on the listening kiosk).

With respect to other computer-based systems: jack-based software often follows the UNIX philosophy: **do one thing well**. This allows to **select the exact set of components** the system needs and makes it easy to **include custom software** in the mix.

MODEST HARDWARE REQUIREMENTS

The very modest system requirements of Linux allow to use lower-end computers with astonishing results.

In 2013, we’ve been mixing 4 musicians, each with a live looper and effects, on a **10-year-old computer** (1.4Ghz Pentium M, 768MB RAM) with a (jack) **latency of 4ms!**

ROCK-STABLE

Once the system is properly configured, it is rock-stable. We’ve been using Linux in dozens of gigs for the last four years and the computer never had a single problem on stage (although we sometimes caused problems, e.g. by forgetting to launch the right session before playing a song...).

VERSIONING

The predominance of text-based config files unleashes the full power of version control systems. **Commits, diffs and branches encourage to experiment** without the fear of not being able to come back to a sound state.

NOT FOR THE FAINT OF HEART

Most distributions (even “audio” ones) fail to provide a real-time kernel.

Although many think we don’t need one, we were not able to achieve very low latencies (couple of ms) without it.

Downloading, patching and compiling a kernel is not for the average musician, though.

Even with a rt-kernel, configuring jack and getting to the point where you make sound takes **more time and knowledge than most musicians are ready to invest** (although many are attracted by the very reasonable price to get together a complete rig).

SESSION MANAGER

We’re still looking for a session manager that would suit our needs, including:

- **gapless** session switching
- midi- or osc- **controllable**
- no need for **client-side support**
- **screen layout** management

What we are using now: **custom bash scripts**.

We will probably end up **writing our own** session manager!

CONS



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Les Chemins de Traverse is a collective of musicians, artists and researchers from a variety of backgrounds with a focus on sonic exploration and live performance. They cover a large musical territory from renaissance and baroque music to jazz, rock music and contemporary experimental noise. More often than not, they mix different styles and techniques - like in a weird chemical experiment that would produce nice colored fluids but might as well explode at any time.